

**Remarks of Paul Gunter, Director  
Reactor Watchdog Project  
Nuclear Information and Resource Service  
Before the  
United States Nuclear Regulatory Commission  
Commission Briefing on Emergency Planning  
May 2, 2006**

Thank you for the opportunity to address some of the public's concerns with emergency planning around commercial nuclear power plants.

Public confidence in emergency planning for catastrophic radiological events is historically problematic and fraught with public mistrust that cannot simply be dismissed as "anti-nuclear" sentiment.

Lack of public confidence in government emergency planning infrastructure and response capability is now particularly acute and perhaps an all time low.

As the Washington Post reported on April 27, 2006 on the conclusions of the 800-plus-page report to be released this week, "Hurricane Katrina: A Nation Still Unprepared," and stated "Hurricane Katrina exposed flaws in the Federal Emergency Management Agency and the Department of Homeland Security that are 'too substantial to mend,' and FEMA should be dismantled and rebuilt inside the troubled department, according to the final report by Senate investigators."

This is the current backdrop for public concerns with regard to radiological emergency planning, coordination and response capability between the United States Nuclear Regulatory Commission and FEMA/DHS. It appears that at least half the structure has already been identified by Congress as in shambles.

My remarks today primarily focus on the aspect of reasonably assuring timely public notification for emergency actions in the event of a radiological release affecting offsite populations.

The public confidence in prompt and effective emergency notification is significantly damaged.

**Public Confidence and the Issue of Inoperable Sirens**

All too frequent and recurring electrical grid disturbances as the result of adverse weather, earthquakes and mechanical failures result in both widespread and local power failures to emergency notification systems (sirens and siren support systems). It is also our understanding that Force-on-Force security evaluations typically assume at the beginning of an exercise that offsite power sources are among target sets for a terrorist attack on a nuclear power plant.

Per NUREG-0654 Appendix 3(B)(2) under Criteria Acceptance “minimum acceptable design objectives for coverage by the system” is designated as:

- a) Capability for providing both an alert signal and an informational or instructional message to the population on an area wide basis through the 10 mile EPZ within 15 minutes.
- b) Initial notification system will assure direct coverage of essentially 100% of the population within 5 miles of the site.
- c) Special arrangements will be made to assure 100% coverage within 45 minutes of the population who may not have received the initial notification with in the entire plume exposure EPZ (emergency planning zone).

It is our concern that “reasonable assurance” can not be provided that the public will have adequate notification of an accident or act of sabotage with potential offsite release without addressing the lack of emergency backup power for public notification systems.

NRC currently does not require of every commercial power licensee that emergency notification systems with their emergency planning zones be made operable independent of electrical grid power. Instead, NRC allows operators to alternately rely upon “mobile route alerting” which requires first responders (fire, police, etc) to go into neighborhoods within the EPZ with loud speakers and bullhorns to alert the population to the emergency. In such instances as a fast breaking accident or act of terrorism, adverse weather, or instances where first responder networks might be challenged with other duties or role conflicts or abandonment such as evacuating their own families first, mobile route alerting presents significant uncertainty and does not provide reasonable assurance that populations will be promptly notified per regulatory requirement.

In our view, these are significant uncertainties and every reason to require prescriptive action for backup power to all outdoor public notification systems.

In fact, federal legislation within the Energy Bill now sets requirements for emergency backup power for emergency notification systems for nuclear power plants with a population of 15 million people within 50 miles of a reactor site.

As a result this legislation, a precedent setting Commission Order now requires emergency backup power to be supplied to the emergency notification sirens by January 2007 around the only legislatively affected site in the country at the Indian Point nuclear power station in Westchester County, New York.

It remains our concern, however, that for the majority of nuclear power stations in the United States, backup power systems are not available to all sirens within the 10-mile planning zone and a significant proportion of sites have no backup power throughout the entire emergency planning zone. Under these conditions there is no way to reasonably assure that in the simultaneous event of an electrical grid failure leading to a Station

Blackout Event or in conjunction with another accident or an act of sabotage that the public will be promptly notified.

NRC has jurisdiction to broaden its enforcement actions of the existing Order affecting Indian Point siren systems to the entire industry and every emergency planning zone. It is unreasonable and irrational that some sites have back up power to all sirens while the majority won't have fully operable notification systems under certain adverse circumstances.

NRC issued the initial license to power reactor operators.

Per 10 CFR 50 Appendix E (D)(3) states that, it is the responsibility of each nuclear power station operator to maintain a radiological emergency plan and “demonstrate that administrative and *physical means have been established for alerting* and providing *prompt* instructions to the public within the plume exposure pathway (EPZ) for transient and permanent populations.”

Per NUREG-0654 Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness In Support of Nuclear Power Plants,” E. entitled Notification Methods and Procedures, “*It shall be the licensee’s responsibility to demonstrate that such means exist*, regardless of who implements this requirement. It shall be the responsibility of the State and local governments to activate such a system.” (p. 45)

We have continually run up against the claim of a NRC versus FEMA jurisdiction issue over whose emergency planning responsibility it is to address recurring inoperability of emergency notification systems.

According to 10 CFR 50.54(s)(3) “The NRC will base its finding on a review of the FEMA findings and determinations as to whether State and local emergency plans are adequate and capable of being implemented, and on the NRC assessment as to whether the licensee's emergency plans are adequate and capable of being implemented. *Nothing in this paragraph shall be construed as limiting the authority of the Commission to take action* under any other regulation or authority of the Commission or at any time other than that specified in this paragraph.”

After years of waiting on FEMA’s glacial pace, the fact that DHS/FEMA’s current viability has collapsed is reason enough to prompt NRC into quicker action to expand its current Order to require emergency backup power to all siren systems around all commercial nuclear power plants.

## **Public Confidence and the Lack of Notification of Unplanned and Unmonitored Radioactive Releases from Nuclear Power Plants to Groundwater**

Just as there is justifiable public concern with being notified about releases of a radioactivity plume into the air from nuclear power station, there is growing public concern for adequate notification of unplanned and unmonitored releases of underground radioactivity plumes into groundwater systems.

The Commission is familiar with the broad public and political concern that is created by these unplanned and unmonitored radioactive releases, namely of tritium contaminated water from nuclear power stations. In the example of the Braidwood nuclear power station, it is now documented that the site recorded in the site Corrective Action Database 22 circulating water blowdown line leaks since 1996 occurring along the 5-mile long discharge pipe to the Kankakee.<sup>1</sup>

It remains our concern, as initially raised at the NRC/DHS Public Meeting on the Review of Emergency Planning Regulations and Guidance on August 31, 2005, that unplanned and unmonitored spills be held accountable through enforcement of reporting requirements. This concern has been significantly amplified since that public meeting. The tritium spills at least at the Braidwood nuclear power station were reportable events under the station's Reportability Manual SAF 1.9, News Release or Notification of Other Government Agencies per 10 CFR 50.73.<sup>2</sup> The State of Illinois has taken action. Yet we have yet to see NRC enforcement action.

Instead, it took a "good neighbor" more than once to notify the operator that water from the plant site was flooding offsite before the operator investigated the spills. Of further concern, a Root Cause Report Review of the Braidwood spills determined that Exelon had a "General Action Plan for Response to Unmonitored Releases and Very Low Radioactivity Spills (draft October 1990 procedure CSG-001). The procedure has instructions for mitigating intrusion of low level radioactive waste spills into groundwater. The review concluded that "This procedure was never implemented."<sup>3</sup>

No radiological mitigation of spills years old to the groundwater and no public notification do not build public confidence. While such spills may not be fast breaking events with the potential of low dose exposures, they none the less prove to raise concern about the lack of operator warning and the downplaying of risk from chronic low dose radiation exposures through groundwater contamination.

As a result of the revelations of the Braidwood, Dresden and Byron tritium spills, Senator Barack Obama has introduced legislation to require prompt notification of not only NRC, but State officials along with public notification through the media.

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<sup>1</sup> Exelon Root Cause Report (RCR) #428868 entitled "Inadequate Response to Unplanned Environmental Tritium Releases from Braidwood Station Due To Lack of Integrated Procedural Guidance" dated January 13, 2005. NRC FOIA 2006-0115 Appendix E-90 p. 3

<sup>2</sup> Ibid. p.3

<sup>3</sup> Ibid p. 5

## **Conclusion**

In closing, I recall the opening line to a recent story that appeared in the Harrisburg, Pennsylvania newspaper The Patriot-News.

It read: “The federal agency that licenses commercial nuclear reactors can’t say for sure if pre-school children in day-care centers and nursery schools will be evacuated if another nuclear emergency occurs in Pennsylvania.”<sup>4</sup>

This is a particularly ironic statement given that the only advisory for a US evacuation following the Three Mile Island nuclear accident in 1979 was issued solely for the special needs and concerns of pregnant women and pre-school children.

A broader public is recognizing a number of “low levee” areas around nuclear power stations in context of emergency planning. Public trust and confidence is continuing to erode. We call upon the agency to take action to assure that emergency planning is more than just ink on the paper granting an operating license.

Thank you, again.

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<sup>4</sup> “NRC says it can’t investigate day-care concerns,” The Patriot-News, April 25, 2006